ITRAP+10
Industry Day - Q&A

The following Q&A apply only to RFI-ITRAP-FY10, as posted in FedBizOps.gov, for testing of equipment in the United States of America for the ITRAP+10 program.

1 Will a copy of the presentation be available?

Yes, the ITRAP+10 overview presentation given on 29 November 2010 will be posted on FedBizOps.gov.

2 Who should respond to this RFI?

Any manufacturer, regardless of national origin, who wishes to test against the standards listed in table 2 of the RFI is invited to submit a response in order to participate in the ITRAP+10.

3 Is ITRAP+10 only for equipment manufactured by EU companies?

No, the EU/JRC will be testing COTS equipment of EU manufacturer. To expand the program the JRC invited the US to join the ITRAP+10 testing program. The US participation expanded the testing to all COTS equipment, regardless of the country of manufacture.

4 What if my equipment does not fall into one of the nine categories listed?

Manufacturers who express an interest in having their equipment tested during ITRAP+10, should submit their system for consideration in the category that best matches it. The goal of ITRAP+10 is to test radiation detection instruments using the commonly accepted standards as our guides. Based on the findings from the ITRAP+10 program, feedback will be provided to the community in order to promote the harmonization of the various standards. It is also possible that ITRAP+10 will identify the need to establish new sets of standards.

For example, a spectroscopic portal could technically not meet the detection requirements set forth in ANSI 42.38 or IEC62484, but perform very well against the identification requirements. This would be a good finding and provide the data necessary to match well defined goals and expectations with the appropriate technology. The resulting feedback to the standards community may be the need to revise the SRPM standards for systems designed as secondary inspection tools only.

5 How much will it cost for a manufacturer to participate?

The costs associated with shipping to and from the US testing facilities will be assumed by the manufacturers. The three US testing facilities will be Oak Ridge National Laboratory (ORNL), Savannah River National

Laboratory (SRNL), and the Pacific Northwest National Laboratory (PNNL).

The costs associated with the manufacturers' personnel required to provide training on the instruments and technical support prior to and during testing will be assumed by the manufacturers.

The costs associated with testing and reporting of the results will be fully assumed by DHS/DNDO and the JRC.

6 Will my equipment be returned to me?

Yes, all the equipment provided by the manufacturers will be returned to them promptly after the end of the execution of the test event in which their equipment participated.

Shipping costs for the equipment from the US laboratories to its final destination once the tests are complete will be assumed by the manufacturers. Repackaging of the instruments will be left to the discretion of the manufacturers. The manufacturers must also declare if there are any HazMat, such as systems under pressure, in their instruments.

7 You state that the testing will be done broadly to ANSI and/or IEC standards. Some portals have been deployed but are designed as secondary portals only. The resulting design can meet the ID specs but not the Detect specs of the standards as it is designed to complement another system. Will you accept the instrument on the basis that it is a secondary portal monitor?

As described in the response to question 4, the goal of ITRAP+10 is to test radiation detection instruments using the commonly accepted standards as our guides. Based on the data that we will collect, one should be able to infer whether a particular piece of equipment would have passed the requirements against which we will test. While useful, this is not the intent of the program. Rather we are surveying the state of commercially available systems and how these fare against the standards as a function of category, size, and technology amongst many other factors. It is also our stated goals to look at the standards and provide some feedback to assist in their harmonization.

Therefore, if a manufacturer desires to have their equipment tested, they should apply and in principle the selection committee may elect to select the unit for testing against ANSI 42.38 / IEC62484. It is understood that the proposed system may not meet the detection requirements, but may over-perform during the identifications tests.

This will provide the data necessary to match well defined goals and expectations with the appropriate technology. Furthermore, as mentioned above, one of the goals of ITRAP+10 is to provide feedback to the standards community. One such feedback may be the need to revise the SRPM standards for systems designed as secondary inspection tools.

8 Is there an additional objective to update the standards?

No, this is not specifically spelled out as one of the ITRAP+10 objectives. However, it is something that may likely arise as a result of this testing program.

9 We would only be able to provide a single example for testing, due to cost considerations but are confident that we can maintain an operational state during the tests. Is this acceptable for the subject test program?

Yes, for some categories, as noted below. However, it should be understood that manufacturers who propose supplying less than the requested number of articles will be considered last for participation.

Tests to standards do require multiple units to be tested. Two important arguments for this requirement are to ensure uniformity of response for the instruments and provide for backup if one unit fails. For most categories of systems, the manufacturers should supply the necessary number of instruments as described in the standards. It is well understood however that some classes of systems, such as the SRPMs and RPMs for example, represent a significant expense to manufacturers. For these large systems, the preference of ITRAP+10 would still be to have at least two units on hand to ensure continuity of testing operations and uniformity of results. Fewer units may also mean that manufacturers may have to maintain significant support on hand to ensure that the test is not negatively impacted.

In summary, the following are the expectations from DNDO for the number of identical instruments to be offered by a manufacturer for ITRAP+10 testing in the US:

- 3 units: PRDs, SPRDs, RIIDs, GSD, NSD and backpacks.
- 1 unit: RPMs and SRPMs.
- 1 unit: Mobile systems.

10 What if I don't have three units of a particular model for testing?

See the response to question 9. Having fewer than three units available will not disqualify a company from having their instruments selected for testing in the ITRAP+10 program. The standards require multiple units of a particular equipment model to be tested. It is understood that the larger classes of equipment (RPM, SRPM, Mobile) represent a considerable cost to the manufacturer. The preference of the ITRAP+10 would be to have at least two units of a particular model. However, if the item fails and it cannot be repaired within 48 hours as specified in the RFI, it will be removed from that round of testing. There may be a second round of testing 4 weeks after the initial round where the instrument may be retested, assuming it has been fixed by that time. It must be clearly understood that, to reduce the risk to the test campaign, the consequence is that the particular model may be ranked lower on the list for that category of equipment.

11 Where in the US will testing as a function of instrument category be conducted?

In the US, ITRAP+10 testing will be conducted at the three GRaDER^{SM} Laboratories, ORNL, PNNL and SRNL. These laboratories have been retained for their experience testing against standards. The final division of labor has not yet been established.

12 Where will the portal systems be tested?

It is likely that the RPMs that are submitted for consideration under the US RFI for ITRAP+10 will be tested at ORNL. However, that decision has not been finalized.

RPMs submitted to the JRC's Call for Expression of Interest will be tested at a European location that the JRC will select.

13 Will the US be testing any systems of EU origin?

Yes, instruments of EU origin will be tested in the US.

This will ensure that the tests are conducted and analyzed in a uniform manner. Therefore a common set of instruments will be tested in the US and in Europe. This may not be done for all categories of equipment.

14 For the PRDs, the module mentions a mechanical drop test. Will that test be performed?

Yes, it will. ITRAP+10 is a test to inform policy makers of the state of the technology that is presently available on the market. As a result, we have concluded that certain categories of equipment need to be able to function after being dropped, as is likely to occur during every day operations. Instruments that fall into this category are the PRDs, the SPRDs, the backpacks, the GSDs and the NSDs.

15 The modules of the US RFI discuss performance against environmental factors. Will the US be testing to the environmental part of the standards?

Yes, DNDO is interested in determining how the industry as a whole is performing against the complete set of standards. DNDO may therefore elect to conduct tests against the environmental part of the standards.

Manufacturers who want to participate in the test campaign must note in their responses which environmental tests described in the standards they wish to opt out. Except for the drop test however, as detailed in the answer to question 14, opting out of specific tests applies only to the environmental section of the standards which may physically damage the unit.

16 What is meant by testing to the environmental part of the standards?

The JRC will be testing a small portion of the environmental part of the standards. For example, the drop test on pager systems will be carried out. The US would like to test to the full ANSI/IEC standards. However, if a manufacturer has concerns over testing specific sections of the environmental standards, they may choose to opt out of those portions.

17 Will the test protocols/procedures test beyond the standards to separate/discriminate between equipment from different vendors?

No. Testing beyond the standards will not be used to discriminate between the equipment from different vendors.

Time and funding permitting, DNDO and the JRC may elect to conduct additional radiological tests on the instruments. These tests would not be used to discriminate between equipment. They will be conducted at the discretion of DNDO, and results will not be reported to the manufacturer.

18 Do the tests shown in Table 1 correspond to the equipment categories shown in Table 2. In other words, does the testing of Spectrometric RPMs begin on 21 April 2011 and the testing of radioisotope identifiers begin on 20 July 2011?

No, there is no correspondence in the schedule of the test as described in Table 1 and the ordering of the tests for each category as listed in Table 2. The schedule is provided for planning purposes only.

Scheduling will most likely depend on proposed delivery times for the class of instruments. The final schedule will be finalized in late January 2011.

19 I could provide three units of an instrument for testing, but would not have them available until the July testing date. What are the consequences if the test for this category is scheduled for an earlier date?

Companies should clearly indicate when they will have the units available for testing. The nine scheduled testing periods are not directly associated with specific equipment categories, as detailed in the response to question 18. The order of testing will be determined after responses to the RFI have been received and evaluated. Delivery times of the equipment will be a major factor in the final scheduling of the tests.

Companies who offer fewer units than required for testing according to the standards will not be disqualified although they may be given a lower priority.

As this is a test of COTS equipment with specific requirements for time on market or units produced, it is expected manufacturers can provide the requested number of units for testing. If unable to do so, they will be

considered ranked lower for participation.

20 How much time will be allowed for instrument testing installation prior to testing?

In their responses, manufacturers should carefully state how much time they need to install and test their equipment in preparation for testing. In principle, manufacturers will be given the time they require to install their equipment and can be negotiated on a case by case basis.

The information provided by the manufacturers will also allow us to define the final test schedule.

This question is similar to question 20

21 Will the details of the test protocols be made available to the vendors?

No, testing is to be conducted against standards which describes which tests are to be conducted and how they are to be performed. It was decided by the ITRAP+10 team that manufacturers would not be provided with the detailed test plans prior to the initial round of tests.

However, manufacturers are invited to describe in their submissions experimental factors which may affect the results against standards.

Furthermore, ITRAP+10 may elect to conduct a second round of testing, time and funding permitting, where particular tests may be repeated. In such an event, manufacturers will be provided with the test plans and would be invited to comment. Any use of the manufacturers' comments is solely at the discretion of DNDO and the JRC.

22 At the conclusion of testing, will raw data and ground truth be made available to the manufacturers?

Yes, at a minimum, each manufacturer will receive the data collected by their instrument against the radiological part of the standards. This data will be in the native format of the manufacturer. Additionally high resolution spectra from those reference sources that are required by the standards will be provided.

The raw data will be provided to the manufacturers no more than two months after completion of the test event in which they participated.

23 What data products will be made available to the manufacturers?

Each manufacturer will be provided with a personalized report, where the performance of their system will be reported against the aggregate, or mean, of the class of instruments of the test in which they participated. In

the event that only one or two instruments are representative of the class of instruments, the results will not be presented against the aggregate or mean.

ITRAP+10 will not report if a system passed or failed any of the tests described in the standards. We will rather provide the quantitative results when appropriate, so that the conclusions on the performance of the system under test against the standards can be left to the reader.

The raw data, as mentioned in question 22, will nevertheless be provided to the manufacturers.

24 Will I have an opportunity to review test results before they're published? I understand that the identity of each instrument will be masked in the report, but my competitors may still be able to glean negative information about my instrument from the test report which could then be used in marketing campaigns.

Yes. Personalized reports will be provided to the manufacturer, which will give them the opportunity to review the results against the raw data, prior to the publication of the joint report JRC/DNDO report in August 2012

This personalized report will not be provided to competitors and will remain solely in the possession of ITRAP+10 and of the manufacturer. This report will not be available to competitors.

25 What opportunities will I have to request clarification on test conditions or refute test results?

As discussed in the answers to questions 22 and 24, manufacturers will be provided with personalized reports well in advance of the Final Report. Manufacturers will then be in a position to ask questions and clarifications and provide feedback prior to publication of the Final Report.

26 For Mobile Units, is the manufacturer required to also provide the car, truck, or van that will carry the detection hardware?

No. Testing is to be conducted against the standards which do not require vehicles.

27 Does this program benefit me? If I can't correlate specific test results with specific models, the test results won't help with instrument selection or procurement decisions.

ITRAP+10 is not intended as the basis for either instrument selection or procurement decisions.

Manufacturers will be provided with a personalized report which will detail quantitatively the performance of their instrument against the radiological parts of the standards.

The manufacturers will be provided with the raw data sets acquired against the radiological tests against standards. This data should be sufficient for the manufacturers to determine if their instruments are capable of meeting the standards or if improvements need to be made.

ITRAP+10 will not draw conclusions or make statements as to whether a system passes of fails said standards. However, it is foreseeable that the manufacturers should be able to determine from the information provided if their instruments would have passed of failed these standards.

28 Can the vendors share the reports they receive with potential customers?

Yes, but ITRAP+10 is not to be used to promote the instruments. Participation in ITRAP+10 should not be considered as an endorsement by the EU and DNDO.

However, the raw data that will be given to the vendors will show how they perform against the standards. The vendors will be able to share the data as they see fit.

29 What is the DNDO position on the requirement or use of ^{3}He for this test?

The testing will be performed against the standards. There is no preference for a specific type of neutron detection system, all types will be considered (solid state, He-3, fibers, any others).